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EXAMINER
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* GARRY E. BALTHES,  
DARRELL R. EGGERS,  
and HARRY R. HICKEY

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Appeal 2009-007058  
Application 10/630,875  
Technology Center 1700

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Decided: November 25, 2009

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Before CATHERINE Q. TIMM, MICHAEL P. COLAIANNI, and  
JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 19-26, 42, and 43. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.<sup>1</sup>

## INTRODUCTION

Appellants describe a vehicle headliner having improved dimensional stability in high temperature environments (Spec. 2 and 3).

Claims 19, 20, 23, and 25 are illustrative:

19. A vehicle headliner comprising:

a headliner core layer having first and second surfaces, and comprising a binding resin, and randomly-oriented natural fibers dispersed throughout the layer's thickness;

a permeability-resistance film layer located on the first surface of the headliner core layer;

a woven fiber layer located on the second surface of the headliner core layer; and

a film layer located over the woven fiber layer opposite the headliner core layer.

20. A vehicle headliner panel of Claim 19, wherein the binding resin of the core layer is a polypropylene and is present in an amount of about 25 to about 35 weight percent, sisal is present in an amount of about 35 to about 45 weight percent, and the natural filler fibers are present in an amount of about 25 to about 35 weight percent.

23. The vehicle headliner panel of Claim 19, wherein the film layer is a polypropylene film.

25. The vehicle headliner panel of Claim 19, wherein the binding resin is a nylon film layer.

The Examiner relies on the following prior art as evidence of unpatentability:

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<sup>1</sup> Oral arguments were held in this appeal on November 17, 2009.

Spengler	5,709,925	Jan. 20, 1998
Jarrard	6,871,898 B2	Mar. 29, 2005

Appellants appeal the following rejections:

1. Claims 19, 21, 22, 26, and 43 are rejected under 35 U.S.C. § 102(e) as being anticipated by Jarrard.
2. Claims 23-25 are rejected under 35 U.S.C. § 103(a) as obvious over Jarrard.
3. Claims 20 and 42 are rejected under 35 U.S.C. § 103(a) as obvious over Jarrard in view of Spengler.

Regarding each rejection (1) to (3), Appellants argue the respective claims as groups. We select claims 19, 23, and 20, respectively, as representative.

*Rejection (1): § 102(e)*

#### ISSUE

Have Appellants shown that the Examiner reversibly erred in finding that Jarrard teaches a headliner having a headliner core layer with natural fibers randomly-oriented throughout the layer's thickness and a film layer located over the woven layer as required by claim 19? We answer this question in the negative.

#### PRINCIPLES OF LAW

Claims are given the broadest reasonable construction consistent with the Specification. *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997). The Patent and Trademark Office ("PTO") determines the scope of claims in

patent applications not solely on the basis of the claim language, but upon giving claims their broadest reasonable construction “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). While the claims are interpreted in light of the Specification, it is improper to read limitations into the claims. *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989).

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). “[A]ppellants have the burden of explaining the data in any declaration they proffer as evidence of non-obviousness.” *Ex parte Ishizaka*, 24 USPQ2d 1621, 1624 (BPAI 1992). Vague and general statements in the broadest terms as to what the exhibits show along with the assertion that the evidence supports Appellants’ position amounts essentially to mere pleading, unsupported by proof or showing of facts. *In re Borkowski*, 505 F.2d 713, 719 (CCPA 1974).

#### FACTUAL FINDINGS (FF)

We adopt the Examiner’s findings regarding Jarrard on pages 3-4 of the Answer as our own. We add the following factual findings primarily for completeness and emphasis.

1. Appellants do not define the claim term “headliner” in their Specification. The Specification describes an embodiment where the headliner is described as being “quite rigid” (Spec. 11).

However, the Specification further discloses that “[o]ther panel or headliner applications may not require such a limited deflection range” (i.e., that other headliners need not be so rigid) (Spec. 11; dated July 30, 2003).

2. The Examiner finds that “headliner” is defined by *Webster’s Ninth Collegiate Dictionary* as “the fabric covering the inside roof of an automobile”, which does not imply any degree of rigidity (Ans. 8).
3. Appellants submit evidence with the Balthes Declarations filed May 10, 2006 and August 31, 2006, which show sag testing procedures for headliners and specifications for Toyota headliners, specifically for the 2006 model year (Evidence Appendix to Br.).
4. The Toyota Engineering Standard evidence indicates that there are two types of headliners: “molded ceiling” and “suspended ceiling” (Toyota Engineering Standard 2). Appellants do not explain the difference between the two types of headliners (Br. and Reply Br. *generally*; Balthes Declarations).
5. Jarrard discloses a soft cover for vehicles with a foam core. The foam core (i.e., the headliner core layer) can be made of polypropylene with natural fibers incorporated therein (col. 5, ll. 28-38; Fig. 1). Jarrard does not disclose that the natural fibers are woven or otherwise aligned in the foam core, or restricted to a particular portion of the foam thickness (Jarrard, *generally*).
6. Jarrard discloses that on woven protective layer 20 a TEFLON™ coating may be formed to provide stain resistance to the material (col. 6, ll. 1-25; Fig. 1).

7. Jarrard teaches that the material may used with a canopy support framework that holds the material and permits the material to be withdrawn and stored when desired (col. 9, ll. 24-46).

## ANALYSIS

Appellants argue that Jarrard fails to teach a “headliner” as claimed (Br. 4-8). Appellants contend that the claimed headliner is a rigid structure unlike Jarrard’s flexible fabric for a convertible top (Br. 4-8). To address Appellants’ arguments we must construe “headliner” by giving it the broadest reasonable interpretation consistent with the Specification. *Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d at 1364. We now undertake that task.

While Appellants exemplify headliners that have a degree of rigidity, they have not defined the term “headliner” in the Specification. Moreover, Appellants modify the rigid embodiment disclosure by stating other headliner applications may not require such a limited deflection range (i.e., rigidity) (FF 1).

Appellants’ evidence attached to the Balthes Declarations in the Evidence Appendix of the Brief merely evinces that sag testing was done on headliners (e.g., Johnson Control evidence) and that for model year 2006 Toyota required a headliner with a specified minimum stiffness. Appellants have not explained how the evidence establishes a general industry standard that all headliners are rigid bodies, such that the term “headliner” in the claim would be understood by an ordinarily skilled artisan as limited to rigid bodies.

Indeed, the Toyota Engineering Standard evidence indicates that there are different types of headliners (i.e., a molded ceiling or a suspended

ceiling) (FF 4). Though both the molded ceiling and suspended ceiling headliners have sagging requirements, Appellants have not explained, and it is unclear, if the suspended ceiling is a rigid body. It appears that the suspended ceiling may reasonably include a fabric suspended from the interior roof of the automobile. Figure 1 on page 3 of the Toyota Engineering Standard evidence appears to indicate that for suspended ceiling headliners the amount that the suspended headliners are allowed to sag or droop should be within the specified tolerance range (i.e., 10 mm). In any event, it is Appellants' burden to explain fully the evidence attached to the Balthes Declarations, which they have not adequately accomplished in this case. *Ishizaka*, 24 USPQ2d at 1624.

Accordingly, we view Appellants' construction of "headliner" as merely an impermissible attempt to read limitations from the Specification into the claims. Rather, giving "headliner" its broadest reasonable interpretation consistent with the Specification, we agree with the Examiner that the claim term "headliner" does not exclude a fabric covering the inside roof of a vehicle as *Webster's* defines that term. The Examiner's reliance on *Webster's* definition is not taken out of the context of Appellants' disclosed invention as argued by Appellants (Br. 5-6; Reply Br. 4-5). To the contrary, the Specification indicates that different headliner applications may require a greater deflection (i.e., less rigidity or greater flexibility). From the above analysis, we construe "headliner" as encompassing a fabric covering the interior roof of a vehicle.

Based on this proper construction, we agree with the Examiner that Jarrard teaches a "headliner" within the meaning of the claim. Jarrard's covering material may be used as a convertible top, which may be supported



by a frame to allow the material to be retracted when desired (FF 7). Therefore, when the framework and material are opened so as to cover the compartment of the vehicle, it would appear reasonable that the fabric cover functions as both a headliner for the internal compartment and an external cover.

Appellants further argue that Jarrard fails to teach “a headliner core layer” having “randomly-oriented natural fibers dispersed throughout the layer’s thickness” as claimed (Br. 9). Appellants contend that the Examiner has not explained how Jarrard’s “incorporating” natural fibers in the foam includes dispersing them throughout the entire body (Reply Br. 6). Appellants further argue that the claimed “headliner core layer” is not a flexible foam layer as in Jarrard because “headliner” as claimed is a rigid body (Br. 9).

As addressed previously, “headliner” includes a fabric material that covers the interior roof of a vehicle, such as in Jarrard. Accordingly, Appellants’ arguments that Jarrard’s flexible foam layer does not correspond to the claimed headliner core layer is without persuasive merit.

Regarding Appellants’ argument that the randomly oriented natural fiber extending throughout the layer of the headliner core feature is missing from Jarrard’s disclosure, the Examiner finds that Jarrard’s disclosure to “incorporate” the natural fibers into the foam includes dispersing them throughout the thickness of the foam layer (Ans. 11). We agree.

Jarrard discloses that fabrics or fibers may be incorporated into the foam, which seemingly differentiates between a fabric and individual fibers. Moreover, Jarrard does not place any restrictions on how the fibers are incorporated into the foam that would indicate that the fibers are aligned or

restricted to a particular portion of the cross-section of the foam layer thickness. Accordingly, we agree with the Examiner that Jarrard's broad disclosure to incorporate the fibers into the foam layer would inherently result in randomly-oriented natural fibers through out the layer's thickness as claimed.

Appellants further argue that Jarrard fails to teach a film layer located over the woven layer opposite the headliner core layer (Br. 9). Appellants contend that the PREFIXX or Scotchguard fabric treatment is not a film (Br. 10). However, the Examiner relies upon Jarrard's teaching of treating the woven layer with a TEFLON<sup>TM</sup> coating, not the Scotchguard or PREFIXX embodiments. Appellants never address the Examiner's specific finding and thus, they have not shown reversible error with the Examiner's finding.

For the above reasons, we determine that Appellants have not shown that the Examiner reversibly erred in finding that Jarrard teaches a headliner having a headliner core with randomly-oriented natural fibers throughout the layer's thickness and a film on the woven layer of the woven layer opposite the headline core layer as required by the claims. Accordingly, we affirm the Examiner's § 102(e) rejection of claims 19, 21, 22, 26, and 43 over Jarrard.

*Rejection (2): § 103(a) Rejection of Claims 23-25 over Jarrard*

ISSUE

Have Appellants shown that the Examiner reversibly erred in determining that it would have been obvious in light of Jarrard's teachings to use polypropylene as the film layer and a nylon film as the core binder resin? We decide this issue in the negative.

## PRINCIPLES OF LAW

We rely on the principles enumerated earlier in this Decision.

### ADDITIONAL FACTUAL FINDINGS (FF)

8. The Examiner finds that Jarrard teaches coatings on the woven layer for stain resistance and take official notice that “it is known in the art polypropylene is stain resistant” (Ans. 5).
9. The Examiner finds that Jarrard teaches that any plastic material may be used as the foam and takes official notice that “it is known in the art that nylon can be foamed” (Ans. 5).
10. Based on FF 8 and 9, the record indicates that the Examiner determined that it would have been obvious to one of ordinary skill in the art to select polypropylene and nylon for use in the material based on the suitability for the intended use as a matter of design choice (Ans. 5).
11. Appellants have not seasonably challenged the Examiner’s official notice of what subject matter would have been known to one of ordinary skill in the art (i.e., the use of nylon and polypropylene).

## ANALYSIS

Appellants argue that Jarrard does not teach using nylon or polypropylene as a film (Supp. Reply Br. 2). Appellants define film as “an extremely thin continuous sheet of a substance that may or may not be in contact with the substrate” (Reply Br. 7), which the Examiner does not contest. Appellants contend that the Examiner has not assessed the differences between the claimed invention and the prior art, except to say

that nylon can be foamed (Supp. Reply Br. 2). Appellants contend that even if the Examiner's assertion about nylon is true, Jarrard does not disclose the film layers (Supp. Reply Br. 2).

Claim 23 recites that the film layer (i.e., the layer located over the woven layer in claim 19) is polypropylene. Claim 25 recites that the binding resin of the headliner core in claim 19 is a nylon film layer. The Examiner finds that Jarrard discloses the claimed invention except for the film layer being made of polypropylene and the binding resin being a nylon film. Accordingly, contrary to Appellants' argument, the Examiner has assessed the differences between the claimed invention and the prior art.

Appellants have not contested the Examiner's official notice that nylon is known to be foamed or that polypropylene is known for its stain resistant properties (Supp. Reply Br. *generally*). Indeed, Appellants have not shown reversible error in the Examiner's determination that based on what was known in the art, one of ordinary skill would have selected polypropylene as the film material for its known stain resistance and nylon as the foam material (i.e., binding resin film) for its strength. Appellants' arguments about the art not teaching using a nylon film are unpersuasive because they fail to show error in the Examiner's determination that it would have been obvious to modify Jarrard's foam layer to include a foamed nylon film as the binding resin for the Examiners stated reasons of record (Ans. 5). Accordingly, we affirm the Examiner's § 103(a) rejection of claims 23-25 over Jarrard.

*Rejection (3): § 103(a) of Claims 20 and 42 over Jarrard in view of Spengler*

#### ISSUE

Have Appellants shown reversible error in the Examiner's determination that it would have been obvious to combine Spengler's teachings to use sisal fibers as the natural fibers in Jarrard's foam layer because Spengler teaches away from the combination? We decide this issue in the negative.

#### PRINCIPLES OF LAW

We rely on the legal principles enumerated earlier in this Decision.

A reference may be said to teach away "when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994). "The degree of teaching away will of course depend on the particular facts; in general, a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the applicant." *Id.*

#### ADDITIONAL FACTUAL FINDINGS (FF)

We adopt the Examiner's factual findings on pages 6-7 as our own. We add the following factual findings primarily for emphasis and completeness.

12. The Examiner relies on Spengler as teaching the use of sisal fiber as a natural fiber in the core of multi-layer panels (Ans. 6).
13. Jarrard teaches that natural fibers, such as "silk, cotton, wool, or the like" may be incorporated into the foam layer (col. 5, ll. 27-38).
14. Spengler teaches a multi-layer panel may include a core that has natural fibers, such as "straw, cotton, flax, hemp, jute, sisal, and

the like” (col. 2, ll. 25-35). Spengler teaches that the natural fibers are economical because they are derived from environmentally favorable and fully renewable natural plant sources (col. 2, ll. 35-38).

## ANALYSIS

Appellants argue that Spengler teaches forming a rigid panel, which teaches away from combining its teachings with Jarrard’s flexible panel (Br. 12). Appellants argue that sisal is a stiff fiber such that Spengler’s teaching to form a stiff panel teaches away from using sisal in Jarrard’s flexible material (Reply Br. 9). However, such arguments fail to address the Examiner’s finding that Jarrard teaches using natural fibers in the core (i.e., foam) layer and that Spengler illuminates which additional natural fibers are suitable, including sisal. One of ordinary skill would have realized the benefits of using Spengler’s strengthening material with its attendant stiffness, such as sisal, and tailored the quantity and properties of the sisal fibers added to Jarrard’s flexible material so as to provide the necessary strength but retain the desired degree of flexibility. Accordingly, we do not find that Spengler discourages using natural fibers in core layers. *Gurley*, 27 F.3d at 553.

To the contrary, Spengler teaches adding natural fibers such as sisal to the core. Similarly, Jarrard teaches adding natural fibers to a foam core. Accordingly, we agree with the Examiner that one of ordinary skill in the art would have incorporated as a portion of the natural fibers the sisal fibers because the fibers are functional equivalents based on the cost and availability of the various natural fibers and desired characteristics of the

panel (Ans. 6). Appellants do not contest the Examiner's finding that the various natural fibers disclosed by the prior art are functionally equivalent.

Appellants further argue that Jarrard teaches incorporating the fibers into foam not resin and none of the prior art teaches using polypropylene as the headliner core layer as required by claim 20 (Reply. Br. 9). However, Jarrard plainly discloses that the foam can be made of any foamable polymer, which includes polypropylene (col. 5, ll. 16-23). Accordingly, Appellants' arguments are without persuasive merit.

For the above reasons, Appellants have not shown reversible error in the Examiner's determination that it would have been obvious to combine Spengler's teachings to use sisal fibers as the natural fibers in Jarrard's foam layer. Therefore, we affirm the Examiner's § 103(a) rejection of claims 20 and 42 over Jarrard in view of Spengler.

### DECISION

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

### ORDER

### AFFIRMED

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Appeal 2009-007058  
Application 10/630,875

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